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TITLE: SEMICONDUCTOR INTEGRATED CIRCUIT DEVICE

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ABSTRACT:

PURPOSE: To improve the power supply noise removing ratio(PSRR) of an operational amplifier by providing this semiconductor integrated circuit device with a voltage amplifier circuit selected by the other ends of the 3rd power supply line and the 2nd constant current source and inputting the output of a differential amplifier circuit.

CONSTITUTION: A differential amplifier stage constituted of a differential amplifier circuit 1 and a constant current source transistor(TR) 7 amplifies a differential voltage between input signals applied to an inverted input terminal 11 and a non-inverted input terminal 12 and outputs the amplified voltage from a differential amplifier stage output terminal 13. An output stage constituted of an active load TR 4 and a constant current source TR 8 amplifies the output of the differential amplifier stage and drives an output load. Since a current change due to the output load driving of the stage of the operational amplifier is mainly absorbed by the 3rd power supply line for supplying high potential to the output stage, an equivalent